

GENERIC DESCRIPTION OF THE BARRIER ALTERNATIVES

Implement actions to ensure availability of water of adequate quantity and quality to agricultural diverters within the south Delta, and to contribute to restoring ecological health of aquatic resources in the lower San Joaquin River and south Delta. Actions may include channel dredging, extension and screening of agricultural intakes, consolidation of agricultural intakes, operable barriers, levee setbacks and levee improvements (such as levee reinforcement or seepage control). Actions will be staged, with appropriate monitoring and testing to guide the implementation process.

DETAILED DESCRIPTION OF THE BARRIER ALTERNATIVES

For the purposes of the environmental analysis for the South Delta Improvements, the following action alternatives will be evaluated. The final alternative may represent a hybrid of these alternatives, such as phased implementation of additional barriers on Middle River upstream of Victoria Canal and Old River at Tracy to address flow/circulation issues. Such phased barrier construction would be evaluated by the Barrier Operations Coordination Team and would only be undertaken if the actions included in the Stage 1 South Delta Improvements, including detailed field studies and analysis, fail to provide an appropriate balance of fisheries, water quality, and water supply availability benefits. Consolidation of agricultural intakes may include an evaluation of pumping water from Clifton Court Forebay to irrigate south Delta farmland that currently uses water diverted from Grant Line Canal. Additional actions done after the completion of the preferred alternative that are deemed necessary to meet balance benefits will require separate environmental documentation.

- Alternative 1 would include installation of a permanent barrier at the Head of Old River and extensive sediment dredging of the south Delta channels and a maintenance dredging program. This configuration would also include extending and screening agricultural diversions to meet project purposes throughout the south Delta region and regulating flows, through the permanent barrier at the Head of Old River, as needed, to maintain south Delta water quality.

- 1 • Alternative 2a would expedite construction of three permanent operable barriers at the Head
2 of Old River, Old River at Tracy, and Middle River upstream of Victoria Canal; phasing out
3 all temporary barrier installations as soon as feasible. This alternative would also include
4 dredging segments of south Delta channels and extending and screening agricultural
5 diversions to meet project purposes.
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- 7 • Alternative 2b would expedite construction of three permanent operable barriers at the Head
8 of Old River, Old River at Tracy, and Middle River upstream of Victoria Canal; phasing out
9 all temporary barrier installations as soon as feasible. This alternative would also include
10 consolidation of agricultural intakes along Grant Line Canal. Only minor dredging would be
11 undertaken as part of Alternative 2b.
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- 13 • Alternative 3 would expedite construction of four permanent operable barriers at the Head of
14 Old River, Old River at Tracy, Middle River upstream of Victoria Canal, and Grant Line
15 Canal; and phasing out all temporary barriers installations as soon as feasible. This
16 alternative would also include localized dredging of south Delta channels downstream of the
17 barriers to meet project purposes.